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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): P.L. Bradshaw et al. Examiner 2145
Serial No. 09/972,207 Group Art Unit A.Q. Choudhury
Filed October 5, 2001 Docket No. SJO920010097US1
TITLE STORAGE AREA NETWORK METHODS AND APPARATUS WITH
HIERARCHICAL FILE SYSTEM EXTENSION POLICY

CERTIFICATE UNDER 37 CFR 1.8:
I hereby certify that this correspondence is being transmitted by facsimile to Examiner Choudhury of
the U.S. Patent and Trademark Office at 571-273-8300 on December 15, 2005.

David W. Victor

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

A Notice of Appeal was filed in the above case on October 17, 2005.

The Examiner requested that Applicants submit a Pre-Appeal Brief Request for Review to allow the Examiner and Supervisory Examiners to reconsider the rejection in view of arguments Applicants submitted. The review is requested for the reasons set forth below.

Applicants further submit herewith a petition for a one-month extension of time in the above case.

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REASONS FOR REQUEST FOR PRE-APPEAL BRIEF CONFERENCE

The Examiner rejected claims 1-20 as anticipated (35 U.S.C. §102(b)) by Lagueux (U.S. Patent No. 6,538,669). Applicants want to discuss why this rejection was erroneous and should be withdrawn.

Claim 1 recites a storage area network (SAN), comprising a plurality of storage devices; a plurality of digital data processors, each having a file system that effects access to one or more of the storage devices coupled to the SAN; and a process in communication with the digital data processors, wherein the process responds to a notification from one of the digital data processors requesting extension of the file system at the requesting digital data processor in accordance with a hierarchically defined file extension policy, wherein the hierarchically defined extension policy indicates a hierarchical arrangement of groups of attributes for configuring the extension of the file system, and wherein the process adds storage to the file system of the requesting digital processor to implement the request for the extension of the file system according to the attributes in the at least one group of attributes associated with the requesting digital data processor.

Applicants request review and believe there were errors in the Examiner's findings and that Examiner failed to establish a *prima facie* rejection because the Examiner has not cited any art that discloses or teaches the claim requirement of responding to a notification on behalf of at least a selected one of the digital data processors for extension of the file system in accord with a hierarchically defined file extension policy.

The Examiner cited col. 5, lines 20-21 of Lagueux as disclosing this claim requirement. (Final Office Action, pg. 2) The cited col. 5 mentions that a SAN can be used to provide storage services. Nowhere does this cited col. 5 anywhere disclose or mention extending a file system in a SAN with a hierarchically defined file extension policy as claimed.

The Examiner further cited col. 7, lines 50-52. (Final Office Action, pgs. 3-4) The cited col. 7 discusses a LUN that specifies a subcomponent of a target ID. Nowhere does this cited col. 7 anywhere disclose or mention extending a file system in a SAN with a hierarchically defined file extension policy.

The Examiner then proceeds on pages 3-4 of the Final Office Action to discuss what he believes to be inherent features of Lagueux, such as a file system, the use of different types of storage, each medium employing its own set of possible file systems, etc. The Examiner further mentions the nodes of Lagueux must have processors and that the storage units must each possess a processor.

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Even if nodes have processors and storage devices may be configured with different file systems, nowhere in this discussion of "inherent" aspects of Lagueux or in the cited Lagueux is there any disclosure or mention of extending a file system in a SAN with a hierarchically defined file extension policy as claimed.

The Examiner cites col. 24, line 12 of Lagueux for hierarchically distributed storage elements. (Final Office Action, pg. 4) The cited col. 24 mentions that storage elements are defined using a tree structure. This cited tree structure is defined as "mirror to stripes to disks" to allow the user to build-up storage in an organized manner. Further, the hierarchical tree shown in FIG. 22 of Lagueux is just a hierarchical display of components of a storage system, such as the storage devices in different pools and stripes. Nowhere is there any disclosure or mention in the cited Lagueux of a hierarchical arrangement of groups of attributes for configuring the extension of the file system. Nowhere is there any disclosure of the claim requirement of extending a file system in a SAN with a hierarchically defined file extension policy. There is no mention that the cited "tree structure" provides the claimed hierarchically defined file extension policy, such that processors request extension of the file system according to the hierarchically defined file extension policy. Instead, the hierarchy in the cited Lagueux is a hierarchy of storage elements and devices, not file extension policy attributes as claimed.

The Examiner further cited col. 21, line 60 to col. 22, line 20 of Lagueux. (Final Office Action, pg. 4) as teaching the claim requirements.

The cited cols. 21-22 mention a single intelligent coordination point for configuration of server access to storage; and that little or no hardware reconfiguration is necessary for adding new devices. The configuration allows automatic maintenance of the mapping of data sets in physical storage. The cited cols. 21-22 discuss various storage management operations. Nevertheless, the cited cols. 21-22 still nowhere disclose or mention the claimed hierarchically defined file extension policy of a hierarchical arrangement of groups of attributes for configuring the extension of the file system. Further, nowhere is there disclosure of the claim requirement that storage is added for a request for the extension of the file system according to the attributes in the at least one group of attributes associated with the requesting digital data processor. The cited storage configuration of Lagueux does not disclose the use of a hierarchically defined file extension policy as claimed having a hierarchical arrangement of groups of attributes.

The Examiner further cited col. 6, line 14 and col. 24, line 12 of Lagueux with respect to the claim requirements. (Final Office Action, pgs. 3-4) The cited col. 6 mentions that a server

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may have application specific processors and col. 24 mentions that a user launches a storage manager routine that displays an image of storage elements. FIG. 22 shows a hierarchical display of storage elements, such as the storage capacity of different storage elements, such as LUNs, disks, etc. Although the cited Lagueux discusses displaying a hierarchical arrangement of storage elements and devices, nowhere does the cited Lagueux anywhere disclose or mention extending a file system in a SAN with a hierarchically defined file extension policy. The display of hierarchically arranged storage elements such as in the cited FIG. 22 is different from and does not disclose the claimed hierarchically defined extension policy indicating a hierarchical arrangement of groups of attributes for configuring the extension of the file system, wherein digital data processors are associated with at least one group of attributes. Display of physical storage space is different from groups of attributes defining a policy used to configure extensions to file systems in response to notifications from one of the digital processors.

In the Response to Arguments the Examiner again cited cols. 21-22, discussed above. (Final Office Action, pg. 23) Again, although the cited cols. 21-22 discuss how storage devices may be configured for server access, nowhere is there any mention or disclosure of a hierarchically defined file extension policy as claimed.

Accordingly, Applicants request review because the examiner has failed to establish the *prima facie* rejection because nowhere does the cited art disclose the requirement of claim 1 of extending a file system in a SAN with a hierarchically defined file extension policy.

Claim 2 depends from claim 1 and further requires that the groups of attributes include a first group at a first hierarchical level and a second group at a second hierarchical level, wherein the first hierarchical level is hierarchically above the second hierarchical level, and wherein the requesting digital data processor is in the first and second groups, and wherein the first group includes at least one digital data processor other than the requesting digital data processor.

The Examiner cited col. 24, line 12 of Lagueux as disclosing the requirements of claim 2. (Final Office Action, pg. 4) Applicants request review of this erroneous finding.

The cited col. 24 discusses a hierarchical display of storage elements. As discussed, the cited display of storage elements is different from and does not disclose hierarchical groupings of attributes to extend a file system by adding storage space. The cited col. 24 discusses a display of storage elements in a hierarchical tree. Nowhere is there any disclosure of a hierarchical grouping of attributes to extend a file system as claimed. Further, nowhere does the cited col. 24 disclose the additional requirements of claim 2 concerning how the digital data processors may

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be associated with different groups of attributes at hierarchical levels used to configure file system extensions.

Accordingly, the decision with respect to claim 2 was erroneous.

Claim 3 depends from claim 1 and further requires that the first group is associated with a first set of file extension configuration attributes defining a default policy for digital data processors associated with that group and wherein the second group is associated with a second set of one or more file extension configuration attributes, wherein a definition of an attribute in the second set overrides a definition for that attribute in the first set, wherein the configuration attributes of the second set, taken in conjunction with non-overridden configuration attributes of the first set, define a policy for the second group. The process configures the file extension on behalf of the requesting digital data processor using the attributes defined for the second group.

The Examiner cited col. 7, lines 20-30 of Lagueux as disclosing the requirements of claim 3. (Final Office Action, pg. 4) Applicants request review of this decision, which is erroneous for the following reasons.

The cited col. 7 discusses a management interface for managing an ISAN server. The management interface contains rule based management of the system including scheduling, process orchestration, handling processes and events, etc. One module provides rules for configuring and maintaining the ISAN server.

Although the cited col. 7 discusses rules for configuring the ISAN server, nowhere does the cited col. 7 anywhere disclose the claim requirements concerning a hierarchical file extension policy including extension including a first group of configuration attributes defining a default policy for digital data processors associated with that group and a second group having a second set of one or more file extension configuration attributes. Nowhere does the cited col. 7 anywhere disclose or mention the claimed details of a hierarchical file extension policy providing attributes used to configure a requested file extension for a digital data processor.

The Examiner states that the cited rules of Lagueux are "equivalent to the claimed policies" (Final Office Action, pg. 5) Applicants submit that this finding is erroneous.

The cited col. 7 discusses rules for configuring an ISAN server. These are entirely different rules than the claimed groups of hierarchically arranged file extension attributes, where a first group defines a default policy and the second group is associated with a second set of file extension configuration attributes. The cited rules of col. 7 do not disclose the claimed hierarchical groups of file extension policies.

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Accordingly, the rejection with respect to claim 3 was erroneous because the cited art does not disclose the additional requirements of this claim.

Applicants further submit that the rejection of claim 4 and the other claims was erroneous for the reasons discussed in the Response to Final Office Action.

Conclusion

For all the above reasons, Applicant submits that the rejection of pending claims 1-4, 6, 16, and 18-34 was erroneous for the reasons discussed above.

The attorney of record invites the Examiner or the Review Board to contact him at (310) 553-7977 if the Review Board believes such contact would advance the prosecution of the case.

Dated: December 15, 2005

By: _____

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